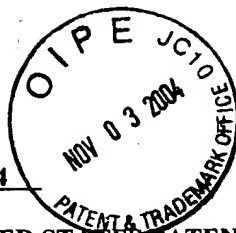


Attorney's Docket No. 67,200-404



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Yu-Hsi Wang
Serial No.: 09/ 847,511
Filed: May 2, 2001
For: Wet Stripping apparatus and Method of Using

Group Art Unit: 1746
Examiner: Michail Kornakov

Commissioner for Patents
Alexandria, VA 22313

TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37 CFR 192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on Aug. 18, 2004.

NOTE: "The Appellant shall, within 2 months from the date of the notice of appeal under §1.191(a) or within the time allowed for response to the action appealed from, if such time is later, file a brief in "triplicate", 37 C.F.R. 1.192(a) [emphasis added].

2. STATUS OF APPLICANT

This application is on behalf of:

X other than a small entity.
— a small entity.

A verified statement:

— is attached.
— was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 CFR 1.17(f), the fee for filing the Appeal Brief is:

— small entity \$170.00
X other than a small entity \$340.00

Appeal Brief fee due: \$ 340.00

Certificate of Mailing

I hereby certify that this correspondence is, on the date shown below, being:

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for Patents, Alexandria, VA 22313

Dated: Nov. 3, 2004

4. EXTENSION OF TERM

NOTE: The time periods set forth in 37 CFR 1.192(a) are subject to the provision of ☐ 1.136 for patent applications. 37 CFR 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply:

(complete (a) or (b), as applicable)

- (a) ☐ Applicant petitions for an extension of time under 37 CFR 1.136
(fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
XXX	one month	\$ 110.00	\$ 55.00
<input type="checkbox"/>	two months	\$ 430.00	\$215.00
<input type="checkbox"/>	three months	\$ 980.00	\$490.00
<input type="checkbox"/>	four months	\$1,530.00	\$765.00

Fee: \$ 110.00

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request: \$110.00

or

- (b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal Brief Fee: \$ 450.00
Extension fee (if any) \$ _____

TOTAL FEE DUE: \$ 450.00

6. FEE PAYMENT

X Attached is a Credit Card Payment Form for the sum of \$ 450.00

A duplicate copy of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

 X If any additional extension and/or fee is required, this is a request therefor
to charge Visa Credit Card No. 4756 8461 9568 0263

And/Or

 X If any additional fee for claims is required, please charge Visa Credit Card
No. 4756 8461 9568 0263

A handwritten signature in black ink, appearing to be 'Randy W. Tung', written over a horizontal line.

Signature of Attorney

Registration No. 31,311

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Bloomfield Hills, Michigan 48302



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant: Yu-Hsi Wang

Group Art Unit: 1746

Serial No.: 09/847,511

Examiner: Michail Kornakov

Filed: May 2, 2001

For: Wet Stripping Apparatus and Method of Using

Attorney Docket No.: 67,200-404

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EV 435 808 540 US
Date of Deposit NOV. 3, 2004

I hereby certify that this paper in triplicate and a credit card payment form in the amount of \$340.00 (required filing fee) are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR \$1.10 on the date indicated above and is addressed to: Mail Stop: Appeal, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Kathy Dixon

APPEAL BRIEF

Mail Stop: Appeal
Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

Appellants appeal in the captioned application from the Examiner's final rejection dated May 18, 2004, of claims 1-7 and 9-20, under 35 USC \$102(b) and 35 USC \$103(a) over Komatsuzaki '945, Weber et al '431, Erk et al '505, Appellants' own admittance, Cardani et al '999, Ward et al '186, Noguchi '631 and Handbook of Semiconductor Wafer Cleaning Technology (The Book).

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It is urged that the rejection be reversed and that all the claims be allowed.

(1) REAL PARTY IN INTEREST

The real party in interest in the present appeal is the recorded Assignee of Taiwan Semiconductor Manufacturing Company, Ltd.

(2) RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that are known to the Appellants, the Appellants' legal representative, or the assignee.

(3) STATUS OF CLAIMS

Claims 1-7 and 9-20 are pending in the application.

Claims 1-7 and 9-20 stand rejected.

(4) STATUS OF AMENDMENTS

A Request For Reconsideration was filed on or about July 19, 2004, which does not contain any claim amendments.

An Advisory Action dated 08/03/2004 was received from the Examiner maintaining rejection of claims 1-7 and 9-20.

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A Notice of Appeal was filed on or about August 18, 2004.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The invention relates to a wet stripping apparatus that is capable of moving reciprocally in a stripper solution for removing thick photoresist layers from the wafer surface and a method for using the apparatus.

(Specification, page 1, paragraph 001.)

In a preferred embodiment, a wet stripping apparatus for removing unwanted film layers from a wafer surface is provided which includes a tank body for holding a volume of a stripper solution therein; a wafer holder for holding at least one wafer therein in a vertical position such that a planar surface of the wafer is parallel to a vertical tank wall of the tank body; and means for reciprocally moving the wafer holder in an up-and-down motion with the at least one wafer immersed in the stripper solution at a frequency of not higher than 100 cycle/min.

(Specification, page 7, paragraph 0016)

The invention is further directed to a method for removing unwanted film layers from a wafer surface by wet stripping which can be carried out by the operating steps of providing a tank

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body and filling the tank body with a volume of a stripper solution; providing a wafer holder for holding at least one wafer therein in a vertical position with a planar surface of the wafer parallel to a vertical tank wall of the tank body; mounting the wafer holder in the tank body immersed in the stripper solution; and moving the wafer holder reciprocally in an up-and-down motion with the at least one wafer immersed in the stripper solution at a frequency of not more than 100 cycle/min.

(Specification, page 8, paragraph 0018)

(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Ground I

Claims 1, 5 and 6 are rejected under 35 USC §102(b) as being anticipated by Komatsuzaki '945.

Ground II

Claims 1 and 2 are rejected under 35 USC §102(b) as being anticipated by Weber et al '431.

Ground III

Claims 2, 9 and 15 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki '945 in view of Erk et al '505.

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Ground IV

Claims 3 and 4 are rejected under 35 USC §103(a) as being unpatentable over Weber et al '431 in view of Appellant's own admittance.

Ground V

Claim 7 is rejected under 35 USC §103(a) as being unpatentable over Weber in view of Cardani et al '999.

Ground VI

Claims 10 and 11 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al and Ward et al '186.

Ground VII

Claims 12-13, 16-17 and 20 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al and Noguchi '631.

Ground VIII

Claims 14 and 18-19 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al, Noguchi, Ward et al and Handbook of Semiconductor Wafer Cleaning Technology.

(7) **ARGUMENTS**

Claims 1, 5 and 6

Claims 1, 5 and 6 are rejected under 35 USC §102(b) as being anticipated by Komatsuzaki '945. It is contended that Komatsuzaki discloses a wafer treatment apparatus including "means for reciprocally moving the wafers holding means with wafers being immersed into the treatment solution".

The rejection of claims 1, 5 and 6 under 35 USC §102(b) based on Komatsuzaki is improper and must be reversed.

Independent claim 1 has been amended by the Appellants in the Feb. 17, 2004 amendment to clearly recite a structural element of:

"means for reciprocally moving said wafer holder in an up-and-down motion with said at least one wafer immersed in said stripper solution at a frequency of up to 100 cycle/min."

Komatsuzaki '945 discloses, in Fig. 4, at col. 4, lines 60-65:

"The holder arms 10,10 are moved reciprocatively up and down by means of a mechanism with a cylinder and a piston, cums, crankshafts and the like (not shown in the

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figures) so that the wafer materials 11,12 held by the sucking units 21,22 are also moved up and down along a radial direction of the rotatable disk 3."

Komatsuzaki does not teach means for reciprocally moving the wafer holder at a frequency of up to 100 cycle/min.

In the Response to Arguments section of the 05/18/2004 Office Action, the Examiner has taken the position that "the limitations of reciprocally moving the wafer holder ... at a frequency of up to 100 cycle/min. is directed to the way the claimed apparatus operates. However, what defines the patentability of apparatus, is its structural elements, but in no way the method by which it operates. In other words, apparatus claims must be structurally distinguishable from the prior art in terms of structure not function".

The Appellants respectfully submit that, as claimed in independent claim 1:

"means for reciprocally moving said wafer holder ... at a frequency of up to 100 cycle/min."

is a structural limitation limiting the structure of **the apparatus** **is built rigid enough to sustain a reciprocating frequency of up to**

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100 cycle/min. If such structural element is not rigid enough, the apparatus could not be operated in such manner. The Appellants therefore respectfully submit that the claim language is not directed to the way the apparatus operates, as contended by the Examiner, but rather directed to the structural rigidity or requirement of the apparatus.

To anticipate a claim of a patent, "each and every elements as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference", Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2D 1051, 1053 (Fed.Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim", Richardson v. Suzuki Motor Co., 9 USPQ 2D 1913, 1920 (Fed.Cir. 1989).

The Appellants respectfully submit that such structural element that has a rigidity that can stand up to 100 cycle/min. reciprocal frequency is not shown by Komatsuzaki '945.

The rejection of claims 1, 5 and 6 under 35 USC §102(b) based on Komatsuzaki is improper and must be reversed.

Claims 1 and 2

Claims 1 and 2 are rejected under 35 USC §102(b) as being anticipated by Weber et al '431. It is contended that Weber et al discloses means for lifting and lowering or reciprocating vertically the wafer receiving device at col. 7, lines 49-53.

The rejection of claims 1 and 2 under 35 USC §102(b) based on Weber et al is improper and must be reversed.

The Appellants respectfully submit that while Weber et al discloses the substrate receiving device can be moved reciprocally in the vertical direction to lower and lift the wafers into and out of the fluid container, Weber et al does not teach the **structural element that has the rigidity for reciprocally moving** the wafer holder **at a frequency of up to 100 cycle/min.**

The rejection of claims 1 and 2 under 35 USC §102(b) based on Weber et al is improper and must be reversed.

Claims 2, 9 and 15

Claims 2, 9 and 15 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki '945 in view of Erk et al '505.

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It is contended that while Komatsuzaki is silent about the use of heating means for the treatment solution, such is disclosed by Erk et al.

The rejection of claims 2, 9 and 15 under 35 USC §103(a) based on Komatsuzaki and Erk et al is improper and must be reversed.

Erk et al discloses a method for cleaning semiconductor wafers with sonic energy by passing through a gas-liquid-interface wherein the surface of a wafer repeatedly passes through the gas-liquid-interface. As clearly shown by Erk et al in Figs. 2 and 3, and at col. 5, lines 52-63:

"Operation of the motor 86 rotates the camming mechanism 62 about the axis X to simultaneously reciprocate and rotate the semiconductor wafers W. The reciprocation action causes the center C of each semiconductor wafer W to move up and down **between the upper level L_1** (Fig. 2) and the **lower level L_2** (Fig. 3). The **level 48 of cleaning liquid** in the bath 42 is selected to be generally **midway between the upper and lower levels L_1 , L_2** ..."

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Furthermore, at col. 6, lines 2-5, Erk et al stated:

"As explained above, cleaning of the semiconductor wafers W in the sonic bath 42 is most effective **at or near the gas-liquid-interface 46.**"

Erk et al therefore teaches a completely different cleaning method than that taught either by Komatsuzaki or the present invention. For instance, the present invention, as clearly recited in independent claims 1 and 9:

"means for reciprocally moving said wafer holder in an up-and-down motion **with said at least one wafer immersed in said stripper solution** at a frequency of up to 100 cycle/min."

The Appellants respectfully submit that since Erk et al teaches a cleaning method in which a wafer is only half immersed in liquid and ultrasonic waves are used at the gas-liquid-interface, while Komatsuzaki teaches a method in which a wafer is **completely immersed** in a stripper solution, and cleaned by mechanical agitation in the cleaning solution. There can be no motivation to combine the teachings of Erk et al with that of Komatsuzaki. Komatsuzaki teaches a cleaning method in which a wafer is completely immersed in the etch solution without using ultrasonic energy. The Komatsuzaki reference therefore cannot be modified by

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the Erk et al reference in arriving at a §103(a) rejection since **there can be no motivation to combine two completely different methods** in arriving at the present invention.

The rejection of claims 2, 9 and 15 under 35 USC §103(a) based on Komatsuzaki and Erk et al is improper and must be reversed.

Claims 3 and 4

Claims 3 and 4 are rejected under 35 USC §103(a) as being unpatentable over Weber et al '431 in view of Appellants' own admittance or separately over Komatsuzaki in view of Appellants own admittance.

The rejection of claims 3 and 4 under 35 USC §103(a) based on Weber et al '431 in view of Appellants' own admittance or separately over Komatsuzaki in view of Appellants' own admittance is respectfully traversed.

Claims 3 and 4 depend on independent claim 1, which the Appellants have amended to clearly recite the limitation of "means for reciprocally moving said wafer holder in an up-and-down motion with said at least one wafer immersed in said stripper solution at

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a frequency of up to 100 cycle/min." The Appellants respectfully submit that such is not taught or disclosed by either Weber et al, the Appellants' own disclosure, Komatsuzaki, either singularly or in combination thereof.

The rejection of claims 3 and 4 under 35 USC §103(a) based on Weber et al '431 in view of Appellants' own admittance or separately over Komatsuzaki in view of Appellants' own admittance is improper and must be reversed.

Claim 7

Claim 7 is rejected under 35 USC §103(a) as being unpatentable over Weber in view of Cardani et al '999. It is contended that while Weber is silent on the utilization of electrical heating means, such is taught by Cardani et al.

Claim 7 depends on independent claim 1 (through claim 2), which clearly recites the structural elements of "means for reciprocally moving said wafer holder ... at a frequency of up to 100 cycle/min." The Appellants respectfully submit that such is not taught or disclosed by Weber, Cardani et al, either singularly or in combination thereof.

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The rejection of claim 7 under 35 USC §103(a) based on Weber and Cardani et al is improper and must be reversed.

Claims 10 and 11

Claims 10 and 11 are rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki in view of Erk et al and further in view of Ward et al '186. It is contended that while the combined teaching of Komatsuzaki and Erk et al does not specifically provide for the stripper solution, however, it indicates that the disclosed apparatus can be used for any liquid treatment of any plate-like materials. Furthermore, it is contended that Ward teaches an aqueous composition containing DMSO and TMAH.

The rejection of claims 10 and 11 under 35 USC §103(a) based on Komatsuzaki, Erk et al and Ward et al is improper and must be reversed.

As presented above, the Appellants have shown that Komatsuzaki and Erk et al involve a completely different art area of cleaning in both the degree the wafer is exposed to a cleaning solution and in the agitation method of the cleaning solution. As such, the references of Komatsuzaki and Erk et al cannot be

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combined in a §103(a) rejection for base claim 9, onto which claims 10 and 11 depend. The additional reference of Ward et al, while disclosing the chemical compositions, does not lend any additional weight in a §103(a) rejection based on the two main references of Komatsuzaki and Erk et al.

The rejection of claims 10 and 11 under 35 USC §103(a) based on Komatsuzaki, Erk et al and Ward et al is improper and must be reversed.

Claims 12-13, 16-17 and 20

Claims 12-13, 16-17 and 20 are rejected under 35 USC §103(a) as being unpatentable over the combined teachings of Komatsuzaki, Erk et al and further in view of Noguchi '631. It is contended that Noguchi discloses the additional step of stationary soaking a substrate in a liquid.

As presented above, the Appellants have clearly shown that since the basic cleaning process disclosed in independent method claims 9 and 16 is not rendered obvious by Komatsuzaki and Erk, the Appellants respectfully submit that the additional reference of Noguchi, which does not teach a method step of reciprocally moving wafers up and down at a frequency of up to 100

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cycle/min., does not lend any additional weight in a §103(a) rejection.

The rejection of claims 12-13, 16-17 and 20 under 35 USC §103(a) based on Komatsuzaki, Erk et al and Noguchi is improper and must be reversed.

Claims 14 and 18-19

Claim 14 is rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al and further in view of Handbook of Semiconductor Wafer Cleaning Technology (The Book). It is contended that while Komatsuzaki and Erk et al are silent on the spin drying of wafers after cleaning, such is taught by The Book.

Claim 18 is rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al, Noguchi and further in view of Ward et al.

It is contended that while Komatsuzaki, Erk et al and Noguchi are silent on the stripper solution composition, such is taught by Ward et al.

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Claim 19 is rejected under 35 USC §103(a) as being unpatentable over Komatsuzaki, Erk et al, Noguchi and further in view of Handbook of Semiconductor Wafer Cleaning Technology (The Book).

It is contended that while Komatsuzaki, Erk et al and Noguchi remains silent on the spin drying of wafers after cleaning, such is disclosed by The Book.

The rejection of claims 14, 18 and 19 under 35 USC §103(a) based on Handbook of Semiconductor Wafer Cleaning Technology, Komatsuzaki, Erk et al, Noguchi and Ward et al is improper and must be reversed.

As previously presented above, the Appellants have clearly shown that the primary references of Komatsuzaki and Erk et al cannot be combined in arriving at the present invention independent claims 9 and 15, which contains the method step of reciprocally moving the wafers up and down at a frequency of up to 100 cycle/min., the secondary references of The Book, Noguchi and Ward et al do not lend any additional weight in a §103(a) rejection.

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The rejection of claims 14 and 18-19 under 35 USC §103(a) based on Handbook of Semiconductor Wafer Cleaning Technology, Komatsuzaki, Erk et al, Noguchi and Ward et al is improper and must be reversed.

CLOSING

In summary, the Appellants have shown that their claimed invention is fully supported by a body of evidence of non-anticipation and non-obviousness. It is therefore respectfully submitted that such evidence of non-anticipation and non-obviousness overcomes any showing of anticipation and obviousness presented by the Examiner. The Appellants therefore submit that the final rejection of their claims 1-7 and 9-20 is improper under 35 USC §102(b) and §103(a).

The reversal of the final rejection is respectfully solicited from the Board.

Respectfully submitted,

Tung & Associates

By: 

Randy W. Tung
Registration No. 31,311
Telephone: (248) 540-4040

CLAIM APPENDIX

1. (Previously presented) A wet stripping apparatus for removing unwanted film layers from a wafer surface comprising:

a tank body for holding a volume of a stripper solution therein;

a wafer holder for holding at least one wafer therein in a vertical position such that a planar surface of the wafer is parallel to a vertical tank wall of said tank body; and

means for reciprocally moving said wafer holder in an up-and-down motion with said at least one wafer immersed in said stripper solution at a frequency of up to 100 cycle/min.

2. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 1 further comprising heating means in said tank body for heating said stripper solution.

3. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 1, wherein said wafer holder is a front open unified pod (FOUP) for holding up to 25 wafers.

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4. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 1, wherein said wafer holder is a standard mechanical interface (SMIF) pod.

5. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 1, wherein said means for reciprocally moving said wafer holder is an air cylinder assembly.

6. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 1, wherein said means for reciprocally moving said wafer holder is an air cylinder assembly that moves at a frequency of about 60 cycle/min.

7. (original) A wet stripping apparatus for removing unwanted film layers from a wafer surface according to claim 2, wherein said heating means is an electrical heating means.

8. (cancelled)

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9. (original) A method for removing unwanted film layers from a wafer surface by wet stripping comprising the steps of:

providing a tank body and filling the tank body with a volume of a stripper solution;

providing a wafer holder holding at least one wafer therein in a vertical position with a planar surface of the wafer parallel to a vertical tank wall of said tank body;

mounting said wafer holder in said tank body immersed in said stripper solution; and

moving said wafer holder reciprocally in an up-and-down motion with said at least one wafer immersed in said stripper solution at a frequency of not more than 100 cycle/min.

10. (Previously presented) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the step of filling the tank body with said stripper solution that comprises dimethyl sulfoxide (DMSO).

11. (Previously presented) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the step of filling the tank body with said stripper solution that comprises dimethyl sulfoxide (DMSO) and tetramethyl ammoniumhydroxide (TMAH).

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12. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the step of mounting said wafer holder in said tank body and soaking said at least one wafer in said stripper solution stationarily for at least 3 min.

13. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the step of mounting said wafer holder in said tank body and soaking said at least one wafer in said stripper solution stationarily for at least 3 min and then moving said wafer holder up-and-down at a frequency of not more than 100 cycle/min.

14. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the steps of:

rinsing said wafer holder and said at least one wafer in a quick dump rinse (QDR) process; and

spin drying said at least one wafer.

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15. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 9 further comprising the step of moving said wafer holder reciprocally in an up-and-down motion for a length of time sufficient to remove all unwanted film layers from said wafer surface.

16. (original) A method for removing unwanted film layers from a wafer surface by wet stripping comprising the steps of:

providing a tank body and filling the tank body with a volume of a stripper solution;

providing a wafer holder holding at least one wafer therein in a vertical position with a planar surface of the wafer parallel to a vertical tank wall of said tank body;

mounting said wafer holder in said tank body and immersing said at least one wafer stationarily in said stripper solution for a time period of at least 3 min; and

moving said wafer holder reciprocally in an up-and-down motion with said at least one wafer immersed in said stripper solution at a frequency of not more than 100 cycle/min.

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17. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 16 further comprising the step after said moving step of immersing said at least one wafer stationarily in said tank body for a time period of at least 10 sec.

18. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 16 further comprising the step of filling the tank body with a stripper solution that comprises dimethyl sulfoxide (DMSO).

19. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 16 further comprising the steps of:

rinsing said wafer holder and said at least one wafer in a quick dump rinse (QDR) process; and

spin drying said at least one wafer.

20. (original) A method for removing unwanted film layers from a wafer surface by wet stripping according to claim 16 further comprising the step of moving said wafer holder reciprocally in an up-and-down motion for a length of time sufficient to remove all unwanted film layers from said wafer surface.

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Evidence Appendix

NONE

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Related Proceedings Appendix

NONE